

ABSTRACT

The present invention relates to systems and methods that facilitate serial access to related messages stored within a queue. The systems and methods comprise a conversation manager that generates conversation groups and associated conversation group identifiers for related messages, wherein related messages are associated with one or more dialog conversations between services. The conversation manager utilizes a respective conversation group identifier to lock a conversation group and provide exclusive serial access to the related messages therein and any related incoming messages to a reader such that only one reader at a time can access and process the related messages; other readers can still concurrently dequeue and process messages associated with other conversation groups. The present invention employs order queuing techniques that ensure messages are stored in-order, which facilitates in-order serial processing of messages in a conversation group.